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ANNUAL REPORT

OF THE

SANITARY CONDITION

OF THE

South-West Cheshire United Districts

FOR

1919.

BY

W. E. BURTON, J.P., D.P.H.

(Medical Officer of Health).

ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH
FOR THE
UNITED DISTRICTS OF SOUTH-WEST CHESHIRE
FOR THE YEAR 1919.

*To the Chairman and Members of the Joint Sanitary Committee
For the South-West Cheshire United Districts.*

Gentlemen,

I have the honour to present to you my Annual Report on the sanitary condition of the Tarporley Urban District, Chester, Tarvin, and Malpas Rural Districts, for the year ending December 31st, 1919.

The Report is based on the tabular statement issued by the Public Health Department of the Cheshire County Council, and the Memorandum to Medical Officers of Health on the preparation of their Annual Reports by the Ministry of Health.

It deals shortly with the combined district, then with the details of each district separately for simplification and comparison as in other years.

I am, Gentlemen,

Yours obediently,

W. E. BURTON, J.P., D.P.H.,
Medical Officer of Health.

**NATURAL AND SOCIAL CONDITIONS OF THE
DISTRICT.**

Physical Features.—The United District of South-West Cheshire consists of Tarporley Urban District, Chester Rural Tarvin Rural, and Malpas Rural Districts. This whole district is practically what is known as the Cheshire Vale. It is bounded on the north by the river Mersey and Manchester

Ship Canal, on the south by the Wych Brook, on the west by the River Dee and its tributary the Pulford Brook, on the east by a range of hills—Kelsall Rise, the Peckforton Hills, and Harthill; these hills are a continuation of the Overton, Helsby, and Birch Hills, which lie to their north and almost touch the River Mersey. The River Gowy runs nearly north and south of the district from Beeston to the Mersey.

The district is purely agricultural, with good farm home-steads as a rule, and here and there are the county seats of the owners of the land, and large residences of merchants from the neighbouring cities of Chester, Liverpool, and Manchester. A great number of these are hunting people, and provide a certain amount of labour for the working class, and good markets for corn and hay for the farmer. The chief occupation is cattle-feeding, cheese-making, and milk-selling to the great centres of Liverpool and Manchester, and some of the milk is sent as far as London, a distance of 190 miles.

The district is well watered. The River Dee and the River Gowy, with their numerous brooks, which are never dry, add greatly to the quality of the pastures and the health of the cattle. The general conditions of the rural inhabitants is good, there is very little poverty, and as a whole they are well housed and clean. The houses, with very few exceptions, are adequate and fit for habitation; there is a sufficiency of open spaces about the houses, and the surroundings on the whole are satisfactory.

The country cottages are mostly detached, with good gardens, and many are of the black-and-white type, with thatched roofs, and small lead lights, with no damp-proof course. These we are trying to bring into a more sanitary condition without destroying their picturesque appearances.

The above social conditions tend to increase the healthiness and longevity of the inhabitants of this district, and there is no employment in the district which causes any adverse conditions.

The amount of Poor Law Relief will be mentioned under the respective districts.

In addition to the Poor Law Infirmaries patients may be sent to the Chester Royal Infirmary, which has been brought up-to-date at a great cost, and the large special hospitals of

Liverpool and Manchester; our phthisis cases can be admitted to the two large sanatoria—Delamere Forest, Manchester; and Kingswood, Liverpool; both of which are just outside the boundary of the South-West Cheshire District; and at Sealand there is accommodation for about a dozen cases.

POPULATION AND AREA OF THE COMBINED DISTRICT.

Area	119,993 acres
Census Population, 1911	32,882
Births, 1919	505
Deaths, 1919	399

For Birth Rate and Death Rate vide respective Districts.

The Birth Rate for England and Wales mid-year, 1919, was 18.5, and the Death Rate 13.8. Infant mortality Death Rate 89 per 1,000 births.

MIDWIVES' ACT, 1902.

At the close of 1919 there were 22 women in the United Districts of Tarporley, Tarvin, Chester, and Malpas qualified under the Midwives' Act to attend confinements:—

Chester	9
Tarvin	8
Malpas	4
Tarporley	1

The County Council is the Supervisory Authority.

Public Health (Ophthalmia Neonatorum Regulations, 1914).—Ophthalmia Neonatorum means a purulent discharge from the eyes of an infant commencing within 21 days from the date of its birth, and is defined an endemic and an infectious disease.

No cases were notified during 1919.

SCHOOLS.

In the combined district the arrangements for the medical inspection of children in elementary schools in your district are under the supervision of the County Medical Officer of Health, who is assisted by one Assistant Medical Officer, and three School Nurses. Cases of communicable skin and eye affections discovered in schools are visited and followed up by the nurses.

The sanitary condition of the schools in the South-West Cheshire District is fairly satisfactory. Some of the playgrounds might and have been improved upon, and the water supply in some of the districts is being improved. Most of the schools are kept clean and well ventilated.

Nearly all the schools have been inspected.

The following schools were closed for Infectious Disease in the Tarporley Urban District:—

February—Tarporley C. E., influenza.

February—Tarporley C. C., influenza.

February—Cotebrook, influenza.

March—Eaton End, influenza.

The following schools were closed in the Chester Rural District:—

January—Mickle Trafford, influenza.

February—Mollington, influenza.

„ Pulford, influenza.

„ Dunham Hill, influenza.

„ Little Stanney, influenza.

„ Saughall, influenza.

„ Thornton, influenza.

„ Ince, influenza.

„ Eccleston, influenza.

June—Eccleston, whooping cough.

„ Pulford, whooping cough.

„ Capenhurst, whooping cough.

September—Backford (as far as Moston children were concerned), scarlet fever.

September—Doddleston, scarlet fever.

November—Thornton, whooping cough.

The following schools were closed in the Tarvin Rural District:—

February—Aldford C. E., influenza.

„ Tilston Fearnall, influenza.

„ Huxley, influenza.

„ Tilston Parish, influenza.

March—Harthill, influenza.

„ Clutton C. E., influenza.

„ Beeston, influenza.

„ Duddon, influenza.

„ Tarvin, influenza.

„ Barrow, influenza.

„ Tattenhall, influenza.

The following schools were closed in the Malpas Rural District:—

February—Malpas C. E., influenza.
 „ Malpas Alportend, influenza.
 March—Edge Green, influenza.
 „ Tushingham, influenza.
 October—Marbury C. E., Chickenpox.

DISEASES OF ANIMALS ACTS.

Anthrax—Order of 1910.—There were no cases of Anthrax in cattle in the South-West District during 1919.

Detention and Isolation of Suspected Animals.

A local authority, or a veterinary inspector on their behalf, may by written notice apply this article to any bovine animal specified in the notice which is being examined under this Order, and such Article shall apply accordingly.

Very few cases were reported under this Order.

EPIZOOTIC ABORTION IN CATTLE.

The Ministry of Agriculture and Fisheries have issued a circular, and the Minister has made an Order that the exposure in a market of cows or heifers which have recently aborted, or the private sale of any such animal without the purchaser being warned of the fact that the animal had aborted, should be made illegal. The Order empowers Local Authorities under the Diseases of Animals Act in Great Britain to make regulations of this character applicable to their particular district. If the Local Authority propose to avail themselves of the powers contained in this Order the Ministry require two copies of any regulations made.

SALE OF FOOD AND DRUGS ACTS.

I am indebted to Mr. Laird, Chief Inspector, Weights and Measures Office, for the following Figures. There were 86 samples taken and analysed:—

Tarporley	7
Chester Rural	32
Tarvin Rural	40
Malpas Rural	7

Particulars of samples obtained in the under-mentioned areas and submitted to the Public Analyst during the year ending 31st December, 1919.

Name of Sample.	AREA.			
	Tarporley Urban.	Chester Rural.	Tarvin Rural.	Malpas Rural.
Arrowroot	1	—	2	—
Butter	—	—	2	—
Camphorated Oil	—	2	2	—
Castor Oil	—	—	3	—
Cheese	—	2	4	—
Cocoa	1	1	2	—
Coffee	1	3	4	—
Egg (Dried)	—	1	1	—
Epsom Salts	—	1	2	—
Gentian Root Pdr.	1	—	—	—
Glycerine	—	1	1	—
Gregory's Powder	1	—	—	—
Ginger (Ground)	1	1	3	—
Jam	—	1	—	—
Lard	—	2	3	—
Liquorice Powder	—	1	3	—
Milk	—	17	4	7
Pepper	1	1	1	—
Yeast	—	1	3	—
	7	32	40	7

All the above samples were reported as pure with the exception of three milks obtained in the Tarvin Rural Area, and which were certified as adulterated with 47.4, 13.5, and 9.4 per cent. of water respectively. The seller of the first-named was fined £10, and legal proceedings with respect to the other two samples are now pending.

RAG FLOCK ACT, 1911.

No action has been necessary in any of the districts.

MATERNITY AND CHILD WELFARE.

Notification of Births Act, 1907, and Extension Act, 1915.

Nurse Eyes has nothing of a special nature to report.

Several priority certificates had to be given for milk.

The following are tabulated statements of visits paid, with approximate results:—

1919.—CHESTER RURAL DISTRICT.

1. Number of births notified	110
(Midwives 77; Doctors 28; Parents 5)	
2. First visits—(a) Expectant Mothers	} 139
(b) Children	
3. Revisits—(a) Expectant Mothers	} 325
(b) Children	
4. Children dead	12
5. Children removed	Nil
6. Illegitimate	8
7. Children clean	—
8. Children dirty	None
9. Breast-fed	119
10. Bottle-fed	25
11. Boat bottles used	23
12. Tube bottles used	2
13. Parents clean and tidy	—
14. Parents drunken and dirty	None
15. Number of babies visited 1919.....	480
16. Visits to old cases.....	941
17. Total visits	1405
H. V. N. R.....	17
Included in above—Stillborn	1

1919.—TARVIN RURAL DISTRICT.

1. Number of births notified	175
(Midwives 122; Doctors 43; Parents 10)	
2. First visits—(a) Expectant Mothers	} 224
(b) Children	
3. Revisits—(a) Expectant Mothers	} 666
(b) Children	
4. Children dead	15
5. Children removed	10
6. Illegitimate	13
7. Children clean	—

8. Children dirty	3
9. Children breast-fed	197
10. Children bottle-fed	26
11. Boat bottles used	24
12. Tube bottles used	2
13. Parents clean and tidy	—
14. Parents drunken and dirty	3
15. Number of babies visited 1919.....	757
16. Visits to old cases.....	1350
17. Total visits	2240
H. V. N. R.....	19

There were 82 cases not notified.

Included in above—Stillborn 12

1919.—MALPAS RURAL DISTRICT.

1. Number of births notified	59
(Midwives 57; Doctors 2; Parents 0;)	
2. First visits—(a) Expectant Mothers	} 78
(b) Children	
3. Revisits— (a) Expectant Mothers	} 242
(b) Children	
4. Children dead	5
5. Children removed	2
6. Illegitimate	3
7. Children clean	—
8. Children dirty	3
9. Children breast-fed	69
10. Children bottle-fed	9
11. Boat bottles used	6
12. Tube bottles used	3
13. Parents clean and tidy.....	—
14. Parents drunken and dirty	3
15. Number of babies visited 1919.....	243
16. Visits to old cases.....	578
17. Total visits	898
H. V. N. R.....	9

There were 27 cases not notified.

Included in above—Stillborn 2

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS 1912 and 1918.

COMPULSORY NOTIFICATION BY ALL MEDICAL PRACTITIONERS TO ALL MEDICAL OFFICERS OF HEALTH OF ALL CLASSES OF CASES OF TUBERCULOSIS.

Prevention of Consumption.—On receipt of the notification the home of the patient is visited and enquiries made into the condition of the house, sanitary arrangements, sleeping accommodation, ventilation, dampness, etc., a card of instructions is left, together with a sputum cup and disinfectant, and the house is disinfected every three months if the patient is treated at home, or after the patient is removed or dies, strict injunctions are left with each patient to sleep alone with windows open, use separate utensils for food, and to burn all sputum.

Treatment of Tuberculosis.—For the treatment of tuberculosis the County has appointed a County Tuberculosis Officer at Chester and another at Crewe, and three Nurses. There is a Dispensary at Tarporley (which is attended once a week), also at Ellesmere Port, and the Central Dispensary at Chester.

EPIDEMIC INFLUENZA.

There was one outbreak of Influenza during the year, in January, February and March; and lasted for three months; it was not confined to any district. It was necessary to close many schools. The symptoms were often severe, and consisted of headaches, rise of temperature, and constipation. The young were chiefly affected.

- (1) Onset was sudden; 2 days to 6 days (rarely) incubation.
- (2) Period of infectivity—till temperature was normal and discharges from nose and respiratory tract had dried up.
- (3) Methods of spread—case to case.
- (4) Evidence of protection by a previous attack—none.

- (5) Frequency of occurrence of second attacks—quite frequent.
- (6) Special clinical symptoms—vomiting and diarrhœa. often constipation, high temperature, pulmonary symptoms quite common, about 60 per cent.;
- (7) Occupation had nothing to do with the disease; it attacked all classes.

The following measures were adopted in all the districts as preventative and precautionary:—

School closure. This was done as soon as any pupils became ill.

Large posters were put in conspicuous places.

During the Epidemic there were the following deaths from Influenza in the respective districts:—Tarporley, 5; Chester, 13; Tarvin 19; Malpas, 3.

VACCINATION.

The Vaccination particulars for the year 1918 for the districts were as follows:—

	Chester.		Tarvin.		Malpas
Births	195	...	258	...	55
Vaccinated	116	...	117	...	31
Insus.	nil	...	nil	...	nil
C.O.	38	...	60	...	6
Dead	8	...	16	...	8
Unaccounted for	33	...	58	...	10

CHESTER RURAL DISTRICT.

VITAL STATISTICS FOR 1919.

Area	35,517 acres
Census Population	12,448
Population estimated to June 30th, 1919 (for births)	11,267
Do. (for deaths)	10,816
Births	156
Birth-rate	13.8
Deaths	134
Death-rate	12.3
Infantile Mortality	13 under 1 year or 83.3 per 1000 births

Births.—During the fifty-two weeks of the year ending December 31st, 1919, the returns of the Registrars recorded 156 (nett) births, which is equal to a birth-rate of 13.8 per 1000 of the population, being 1.6 per 1000 lower than in 1918. This is the lowest since 1917. There were 7 illegitimate births.

Deaths.—The nett total number of deaths was 134, which is equal to a death-rate of 12.3. 187 non-residents died in the district, and 14 residents died outside the district. 134 is the corrected number. 13 of these deaths occurred in children under one year of age. Total deaths in institutions in the district were 189: of that number 24 occurred in the Tarvin Union Workhouse, Great Boughton, and 165 in the Asylum, and of these 165 deaths in the Asylum 2 belong to the Rural District, and 6 were not transferable.

There were 8 deaths from phthisis and two from "other tuberculous diseases."

Infant Mortality.—Of the 13 deaths under one year of age mentioned above, 3 were under one week old, one between two and three weeks, three between 1 and 3 months, four between 3 and 6 months, one between 6 and 9 months, and one between 9 and 12 months, giving an infant mortality rate of 83.3 per 1000 births, this being a higher rate than in 1918.

CAUSES OF DEATHS—CIVILIANS ONLY.

	Males.	Females.
Enteric Fever	1	—
Whooping cough	2	1
Influenza	9	8
Pulmonary tuberculosis	3	5
Tuberculous meningitis	1	—
Other Tuberculous Diseases	1	—
Cancer, malignant disease	7	8
Meningitis	1	1
Organic Heart Disease	11	6
Bronchitis	2	3
Pneumonia (all forms)	7	6
Other Respiratory Diseases	1	—
Diarrhœa, &c. (under 2 years)	2	1
Appendicitis and Typhlitis	1	1
Cirrhosis of Liver	—	1
Nephritis and Bright's Disease	3	4
Parturition, apart from Puerperal Fever	—	1
Congenital Debility, &c.	3	—
Violence, apart from Suicide	1	1
Other defined diseases	10	21
	—	—
	66	68

SANITARY CIRCUMSTANCES OF THE CHESTER
RURAL DISTRICT.

I. **Water Supply.**—Chester Rural District is supplied by the Chester Water Company, by the Wrexham Water Company, and by the West Cheshire Water Company. The out-lying parishes are supplied by springs, dip-wells, and ordinary wells. These waters are fairly wholesome and sufficient, except in the parishes of Mickle Trafford and Ince, and parts of Mollington and Lea. The water supply of Dunham Hill is satisfactory, arrangements having been made with Runcorn Rural District to supply from their waterworks at Helsby. Ince is still under consideration.

A disused well has be filled up at Upton—now using City water.

No extensions have been carried out during 1919.

There has been one sample of water chemically analysed from Christleton, none bacteriologically. The water was unsatisfactory—well cleaned out and cemented, &c.

No contamination of the water by lead has occurred.

II. Pollution of Rivers and Streams.—In the Chester Rural District some of the streams are polluted or are likely to be polluted. At Great Saughall the stream is polluted by the house drainage of the whole village. A second sewage scheme has been prepared for Great Saughall, and has been accepted, but the work has not been commenced owing to the war. House drainage pollutes the River Gowy at Mickle Trafford and has been before you for consideration, and some cottages pollute the brook at Abbots Mead. No manufacturing waste or effluents cause pollution.

III. Drainage, Sewerage, and Sewage Disposal.—The following new works of sewage have been carried out during 1919:—

- 1.—Main sewer at Great Saughall repaired on two occasions.
- 2.—Manholes repaired, Newton, Christleton, Bache, Upton and Great Boughton.
- 3.—Bache, Upton, Newton, Christleton, and Great Boughton sewers have regular attention.

Great Saughall and Mickle Trafford are still without a satisfactory system of sewage, and are still before you for consideration.

The City of Chester sewers dispose of the sewage from Christleton, Great Boughton, Newton, Upton, and the Bache.

Eccleston, Pulford, Poulton, and part of Dodleston, are treated by the Eaton Estate.

- 1.—A filter bed at Balderton treats a good portion of the Dodleston sewerage, as well as Balderton.
- 2.—A similar filter bed has been provided for Poulton.

There have been no complaints during 1919 as to the disposal works in your district.

IV. Closet Accommodation.—This is satisfactory and sufficient. Five closets have been converted into water-closets during the year, 8 into pail closets, and drain ventilation provided in Upton Schools.

V. Scavenging.—This is carried out by the Rural District Council as far as back passages are concerned in Great Boughton and Newton, and privately. The refuse is removed weekly and fortnightly as occasion requires. There is no record of the number of midden-privies, dry ash-pits, pail closets, dust-bins, cesspools, in your district. There were several complaints from Newton and Great Boughton as to refuse removal, but this was trivial and dealt with—also heaps of refuse removed from Christleton common.

The main roads through the villages are kept clean and swept when required. During the wet months in the late autumn it is very difficult to keep the roads free from mud, as the farmers are doing their carting off the fields, the soil being stiff, adheres to the cart wheels and simply plasters the roads as it falls off, and if the roads are scraped one day it is as bad as ever the next.

Ditches have been cleaned out at Christleton, Great Boughton, Ince, and Elton. Seahill brook at Saughall, and a Pond at Thornton.

VI. Sanitary Inspections of the District.—The following is a tabulated statement of Sanitary Inspections for the year 1919:—

CHESTER RURAL DISTRICT.

Tabular Statement of Insurances for the Year ended December 31st, 1919.

A Number and Nature of Inspections made.		Number	B Number of Notices served		Result of Service of Notices. C		
			Statutory	Informal	Notices complied with	Remain- ing in hand.	Prosecutions. Instituted Pending
1.	Dwelling Houses (general inspections and revisits)	120	10		6	4	
2.	Cellar Dwellings ...	...				
3.	Back-to-Back Houses ...	...				
4.	Tents, Vans, Sheds, &c. ...	...				
5.	Courts, Yards, Passages ...	100	18		6	12	
6.	Privy-Middens, Earth or Pail Closets ...	120	21	2	10	13	
7.	Cesspools ...	120	20	18	26	12	
8.	House Drainage ...	120	20		8	12	
9.	Ditches, Watercourses, &c. ...	18	1	3	4		
10.	Offensive Accumulations ...	20		4	4		
11.	The Keeping of Animals (P.H.A., 1875, S. 91 (3))	...					
12.	Offensive Trades ...	...				
13.	(a) Slaughterhouses (Public)	22		6	6		
	(b) Other Places where Food is produced or sold	...					
14.	Piggeries ...	...				
15.	(a) Dairies ...	6		1	1		
	(b) Cowsheds ...	215		20	18	2	
	(c) Milkshops ...	1					
16.	(a) Factories ...	16	one to be served		1	1	
	(b) Workshops ...	16		2			
	(c) Workplaces ...	...				
	(d) Outworkers' Premises ...	...				
17.	Bakehouses (Overground) ...	4		2	2		
	" (Underground)	...					
18.	Common Lodging Houses ...	...				
19.	Houses let in Lodgings ...	...				
20.	Smoke Observations ...	...				
21.	Canal Boats ...	...				
22.	Infectious Disease Inquiries and Revisits. 94 Cases— 11 of these at Institutions	120		4	4		
23.	Miscellaneous and Revisits ...	50					

The amount of Poor Law Relief for 1917	was about	£341.
„	1918	„ £421.
„	1919	„ £511.

VII. Premises and Occupations which can be controlled by Byelaws or Regulations.—You are now provided with Byelaws with regard to Slaughter-houses, as you already have for Upton under Section 276 of Public Health Act, 1875, and under Section 5 of the Public Health Act (Amendment Act), 1890.

The Order came into force on January 24th, 1913, and in the following 20 places—Bache, Blacon-with-Crabwall, Bridge Trafford, Capenhurst, Caughall or Coughall, Christleton, Dunham-on-the-Hill, Great Boughton, Great Saughall, Hapsford, Hoole Village, Little Saughall, Littleton, Mickle Trafford, Mollington, Newton-by-Chester, Picton, Shotwick Park, Wervin, and Wimbolds Trafford.

No action has been taken or needed in regard to houses let in lodgings, offensive trades, etc., nor has there been any need for regulations in respect of underground sleeping rooms (Housing and Town Planning Act, 1909, Section 17 (7)).

VIII. Schools.—In addition to the previous remarks on Schools, disinfectants were supplied to the schools closed for Infectious disease.

FOOD.

(a) **Milk Supply.**—The number of registered premises at the close of 1919 was dairies 6, cowsheds 215, milk-shops 1. These were all regularly inspected. There were no notices, except verbal ones, served for non-compliance with regulations, and no legal actions taken for non-compliance with notices. The milk produced within the district is wholesome, and no action has been taken as to tuberculous milk.

Milk and Cream Regulations, 1912.—I have no comments to make regarding the administration of these Regulations.

(b) **Other Food Inspection.**—Food inspection is systematically carried out in your district. There are no public slaughter-houses. There are 22 private slaughter-houses in-

cluding pig butchers. The private slaughter-houses are inspected regularly. A much-needed improvement has taken place in slaughter-houses. Systematic inspections are made of bake-houses, which are three in number.

A carcase of beef was condemned and destroyed, being tuberculous.

(c) **Sale of Food and Drugs Acts.**—For particulars of samples submitted to the Public Analyst from the Chester Rural District during the year ending 31st December, 1919, see under Combined District.

PREVALENCE OF AND CONTROL OVER ACUTE INFECTIOUS DISEASES.

Infectious Diseases Notification Act.—There were 99 cases of infectious disease notified during the year 1919.

Measles and German Measles	15
Scarlet Fever	28
Diphtheria (including Membranous Croup)...	10
Enteric Fever	5
Pulmonary Tuberculosis	14
Other Tuberculous Diseases	1
Erysipelas	2
Puerperal Fever	2
Cerebro Spinal	1
Pneumonia	19
Malaria	2
Dysentery	1

Eight of the diphtheria cases were removed to Hospital, twenty-four cases of scarlet fever, and one enteric—33 in all; and two cases of scarlet fever were removed in error to Clatterbridge I. D. Hospital.

The cases of scarlet fever occurred mostly in the Spring and September. Backford and Dodleston Schools had to be closed in September. There were two deaths from measles, three from whooping cough, and three from diphtheria.

For school closure see "Schools" earlier on in this Report.

PREVALENCE OF AND CONTROL OVER TUBERCULOSIS.

There were 14 cases of pulmonary tuberculosis notified during 1919, and 1 other tuberculous disease, that is 5 more than last year. Every care is used to prevent the spread of infection as set down earlier in this Report under Public Health Tuberculosis Regulations, 1912.

There is no sanatorium or hospital accommodation in your district for phthisis patients other than the Workhouse Hospital, but cases may be admitted into the Kingswood Sanatorium, Delamere Forest, which is just over your boundary.

SANITARY ADMINISTRATION OF THE DISTRICT.

1.—**Staff.**—Mr. C. Owen, of Dee Banks, Chester, is the Sanitary Inspector and Surveyor for your district, and Mr. Owen, junr., the Assistant Inspector, and Inspector under the Housing and Town Planning Act, 1909. They have made numerous inspections from time to time, alone and with the Medical Officer of Health.

2.—**Hospital Accommodation for Infectious Diseases.**—Isolation Hospital at Sealand, near Chester. Other cases may be sent to the Chester Royal Infirmary and the large Hospitals of Liverpool and Manchester.

3.—None of the following Adoptive Acts are in force in your district:—

Infectious Diseases Prevention Act.

Public Health Amendment Act, 1907.

No other Adoptive Acts, Bye-laws, and Regulations are in force in your district.

4.—There was one sample of water analysed chemically during the year, and none bacteriologically.

FACTORY AND WORKSHOPS ACT, 1901.

	Inspections.	Notices.	Prosecutions.
Factories	16	...	0
Workshops	16	...	0
Workplaces	0	...	0

Workshops on Register at end of year.

Blacksmiths	6
Dressmakers	2
Bakehouses	3
Wheelwrights	4
Cycle Shops	2
Joiner	1
Bootmaker	1
Various	1

HOUSING.

Since my last Report we do not seem to be much more forward with regard to building operations. The sites have been passed and you have decided to build 150 Houses. The following parishes to have numbers as detailed below:—

Upton	8
Eccleston	4
Great Saughall	38
Mollington	14
Newton	24
Pulford	4
Backford	8
Doddleston	4
Mickle Trafford	2
Dunham Hill	14
Wervin	4

The cottages to be built will have, approximately an eighth of an acre of land attached to each, and will contain parlour, kitchen, scullery, with room and provision for bath if required, coal-shed, and w.c., or pail closet, and three bedrooms.

I. General housing conditions in the District.

1. No. of houses 2020.

No. for working classes, 1592.

New houses, or in course of erection 1919;
erected 3 bungalows and 3 houses (6).

2. Population 13,680. Anticipated changes, none.

3. (a) Extent of shortage or excess—150 houses.

(b) Measures taken or contemplated to meet
shortage—Scheme in hand.

II. Overcrowding.

1. Extent in which action was taken to reduce.
2. Causes. Shortage of houses.
3. Measures taken or contemplated to deal with overcrowding—Scheme in hand.
4. Principal cases of above dealt with and action taken.

III. Fitness of houses.

1. (a) General standard of housing in District—good.
(b) General character of defects found in unfit houses. See later in Report.
2. Action taken as to unfit houses under a/P.H.A., b/H.T.P.A. None in 1919.
3. Difficulties in remedying unfitness, special measures taken and any suggestions. Cost and shortage of Labour.
4. Conditions so far as they affect housing as regards water supply, closet accommodation, refuse disposal, together with measures taken during the year in these matters. See later in Report. 12 notices received

IV. Unhealthy Areas.

1. Action taken as regards area represented before the beginning of the year under Part i. or Part ii. of Housing Acts, 1890.—None.
2. Particulars of and action taken as regards areas represented during the year.—None.
3. Information as to complaints made during the year that areas were unhealthy, and action taken.—None.

V. Bye-laws relating to houses, to houses let in Lodgings, and to tents, vans, sheds, etc.

1. As to working of existing bye-laws.—Satisfactory.
2. As to need of new bye-laws and revision of existing bye-laws.—Satisfactory.

Housing Statistics for 12 months ending December, 1919.

1. Number of dwelling-houses in respect of which complaints were made that they are unfit for human habitation.—None.
 - (a) By householders.—None.
 - (b) By Parish Councils.—None.
 (Sec. 31 (1) of Act, 1890).
 (Sec. 6 (2) L.G. Act, 1894).
2. Action under Section 17, Housing Act, 1909.
 - (a) No. of houses inspected.—100.
 - (b) No. of such houses considered unfit for habitation.—0.
 - (c) No. of houses where defects were remedied without closing order.—17.
3. Action under Section 28, Housing Act, 1919.
 - (a) No. of orders for repairs issued.—None.
 - (b) No. of cases in which repairs were carried out by Local Authority.—None.
 - (c) No. voluntarily closed on notice by owner that they could not be made fit without reconstruction.—None.
4. Closing Orders.
 - (a) No. of representations made to Local Authority with a view to making Closing Orders.—None.
 - (b) No. of Closing Orders made.—None.
 - (c) No. of houses in regard to which Closing Orders were determined on the houses being made fit for human habitation.—None.
5. Demolition Orders.
 - (a) No. made.—None.
 - (b) No. of houses demolished in pursuance of demolition orders.—None.
6. No. of houses demolished voluntarily.—None.

7. Obstructive Buildings.

No. of Representations made (Sec. 38 of Housing Act, 1890).—None.

(b) No. of Buildings demolished.—None.

(c) No. of Representations still under consideration.—None.

8. Staff engaged in Housing work with duties of each Officer.

Classification of Defects found on Inspection under Housing and Town Planning Act, 1909, for the year ending December 31st, 1919.

	Defects.	Remedied.		
		Closing Order.	With- out.	In hand
1. Water supply	1	0	1	0
2. Closet accommodation	18	0	6	12
3. Drainage	20	0	8	12
4. Condition as to light, free circulation of air, dampness, and cleanliness	2	0	2	0
	Dampness serious.			
5. Paving of yard and outhouses	18	0	6	12
6. Arrangement for deposit of refuse, ashes, etc.	4	0	4	0
7. Existence of any room, etc.: Sub-section 7 of Section 17, Housing and Town Planning Act, 1909	0	0	0	0
8. Any defects in other matters which may tend to render house dangerous or injurious to health	0	0	0	0
9. Overcrowding	1	0	1	0

TARPORLEY URBAN DISTRICT.

SANITARY CIRCUMSTANCES OF THE TARPORLEY URBAN DISTRICT.

I. Water Supply.—Tarporley Urban District is supplied by the Liverpool Corporation from their Lake Vyrnwy supply, the water mains passing through this district. The out-lying parts are supplied by springs, dip-wells, and ordinary wells. All the supplies are constant and wholesome, and fairly free from the risk of pollution. The Vyrnwy water is very soft water, and iron pipes are in general use. No contamination of the water by lead has occurred. No extensions have been carried out during 1919, and the district was well supplied with water, except cottages at Brownhill's and Harrop's, Cotebrook, Utkinton Lane Cottages. The owners of these cottages are being pressed to provide a better supply.

One sample of water was chemically analysed.

II. Pollution of Rivers and Streams.—The streams are fairly free from pollution, with the exception of the brooks in the Townships of Eaton and Utkinton, which are polluted by house drainage and farm sewage, there is no manufacturing waste or effluents entering them.

III. Drainage, Sewerage, and Sewage Disposal.—There have been no extensions of the sewers in Tarporley Urban District during 1919. Some parts of the villages viz., Eaton, Rushton and Utkinton, are still without a proper system of sewers, having tanks and cesspools which they empty on to their gardens and land. Nearly all the cottages in Tarporley have been provided with w.c.'s. The Tarporley sewage is disposed of by means of a precipitation tank, sludge beds, and land treatment. These sewage works are in good condition. There has been a complaint that irrigation of the land makes some adjoining low-lying land wet and unfit for cultivation. No alterations have taken place at the Disposal Works during 1919, but it is proposed to build extra sludge beds and filters to improve the effluent.

The Sewage Outfall Works are in good condition, and the filtration of sewage by irrigation is successful, cultivation and cropping of the land keeping the soil open and sweet and in good order. Crops have done fairly well,

VITAL STATISTICS OF THE TARPORLEY URBAN DISTRICT FOR 1919.

Area	6,195 acres
Census Population, 1911	2,604
Population estimated to June 30th 1919	2,690
Births	45
Birth-rate	16.7 per 1000
Deaths	37
Death-rate	14.3
Infantile Mortality	5 under 1 year or 111.1 per 1000 births

Births.—During the fifty-two weeks of the year ending December 31st, 1919, the Returns of the Registrar recorded 42 births—the corrected number is 45, which is equal to a birth-rate of 16.7 per 1000 of the population, being 9.5 per 1000 lower than in 1918.

There were six illegitimate births.

Deaths.—The total number of deaths registered in the district was 34. Two non-residents died in the district and five residents died out of the district, the corrected number being 37, which is equal to a death-rate of 14.3 per 1000. Five of these deaths were of children under one year of age.

Infant Mortality.—The causes of death of the five infants were 1 of Gastro Enteritis, 2 Premature Birth, 1 Debility, and 1 Marasmus. The death-rate is very heavy, being at the rate of 111.1 per 1000 births.

CAUSES OF DEATHS—CIVILIANS ONLY.

Influenza	—	4
Pulmonary Tuberculosis	1	—
Cancer, Malignant Disease	2	5
Organic Heart Disease	3	1
Bronchitis	1	1
Diarrhœa (under 2 years)	1	—
Nephritis and Bright's Disease	1	—
Congenital Debility, etc.	2	2
Other defined diseases	4	7
Violence	—	2

Nett Births: Legitimate, 39; illegitimate, 6.

Four deaths of illegitimate children (two of these died out of the district).

IV. **Scavenging** is not carried out by the Local Authority but by private arrangement. Each householder as a rule disposing of his own refuse. Your Council provides tips.

The approximate number of

1. Midden privies	178
2. Dry Ash-pits	137
3. Pail Closets	61
4. Dustbins	0
5. Cesspools	About 200
6. Water Closets	115

In Tarporley some of the privies are old and inadequate, and in the other Townships, where there are old and dirty privies pail closets are being substituted, as most of the cottages have good gardens.

V. **Sanitary Inspections during 1919.**—The Surveyor and Inspector, Mr. Samuel Greenway, has made inspections from time to time alone and with the Medical Officer of Health.

The following is a Tabulated Statement shewing particulars of these inspections:—

Tabular Statement of Mr. GREENWAY, Inspector of Nuisances, for the Year ended December 31st, 1919.

A		Number	B		Result of Service of Notices. C		
			Number of Notices served.		Notices complied with.	Remain- ing in hand.	Prosecutions.
			Statutory	Informal			
Number and Nature of Inspections made.			7	20	17	10	
1.	Dwelling Houses (general inspections) ...	80					
2.	Cellar Dwellings ...	...				
3.	Back-to-Back Houses ...	...				
4.	Tents, Vans, Sheds, &c. ...	...				
5.	Courts, Yards, Passages ...	...				
6.	Privy-Middens, Earth or Pail Closets ...	60					
7.	Cesspools ...	20					
8.	House Drainage ...	20					
9.	Ditches, Watercourses &c. ...	10					
10.	Offensive Accumulations ...	6					
11.	The Keeping of Animals (P.H.A., 1875, S. 91 (3))	...					
12.	Offensive Trades ...	6					
13.	(a) Slaughterhouses (Public) ...	...				
	(b) Private) ...	12					
	(b) Other Places where Food is produced or sold	2					
14.	Piggeries ...	...				
15.	(a) Dairies ...	12					
	(b) Cowsheds ...	12					
	(c) Milkshops ...	12					
16.	(a) Factories ...	12		1	1		
	(b) Workshops ...	12					
	(c) workplaces ...	12					
	(d) Outworkers' Premises ...	...				
17.	Bakehouses (Overground) ...	6					
	" (Underground)	...					
18.	Common Lodging Houses ...	2					
19.	Houses let in Lodgings ...	...				
20.	Smoke Observations ...	...				
21.	Canal Boats ...	...				
22.	Infectious Disease Inquiries and Revisits. 94 Cases—	...					
23.	Miscellaneous and Revisits ...	...				

VI. Premises and Occupations which can be controlled by Byelaws or Regulations.—There is one common lodging-house, which is clean and well kept. There is one offensive trade in your District, which is carried on in an unsatisfactory manner, the premises require reconstructing and re-draining. There are no underground sleeping rooms (H.T.P. Act, 1909, Section 17 (7)).

VII. Schools.—What is said under my remarks for the whole district is applicable to all the schools in the Tarporley Urban District.

FOOD.

(a) **Milk Supply.**—The total number of Registered Premises at the close of 1919 was 30. 12 inspections were made. No notices were served for non-compliance with the Regulations, and no legal actions were necessary.

The milk produced within the district is wholesome, and no action has been taken as to tuberculous milk.

Milk and Cream Regulations.—I have no observations to make with regard to the above.

(b) **Other Foods.**—Food inspection is systematically carried out in your district. There are no public slaughter houses, but there are two private ones; 12 inspections were made of these. Ten inspections have been made during the year of the six bakehouses in the district, and the fish and chip potato shops, and where meat pies and sausages are made.

(c) **Sale of Food and Drugs Acts.**—For particulars of samples submitted to the Public Analyst from the Tarporley Urban District during the year ending 31st December, 1919.

Vide early in this Report.

FACTORY AND WORKSHOPS ACT, 1901.

	Inspections.	Notices.	Prosecutions.
Factories	12	1	0
Workshops	12	0	0
Workplaces	12	0	0

Workshops on Register at end of year.

Bakehouses	6
Joiners and Wheelwrights	6
Blacksmiths and General	4
Various	15

HOUSING.

I. General housing conditions in the District.

1. No. of houses.

No. for working classes.—356.

New houses or in course of erection, 1919.—None.

2. Population 2572. Anticipated changes.—None

3. (a) Extent of shortage or excess.—About 12 to 20.

(b) Measures taken or contemplated to meet shortage.—Council propose to build 12 cottages.

II. Overcrowding.

1. Extent.—Very little.

2. Causes.—Shortage of Cottages.

3. Measures taken or contemplated to deal with overcrowding.—Not so serious as to justify proceedings.

4. Principal cases of above dealt with and action taken.

III. Fitness of houses.

1. (a) General Standard of housing in District.—Fair average for county district.

(b) General character of defects found in unfit houses.—Dampness, bad yards, and drainage.

2. Action taken as to unfit houses under (a) P.H.A. (b) H.T.P.A.—Two houses cleaned and improved.

3. Difficulties in remedying unfitness, special measures taken and any suggestions.—Difficulties are shortage of material and labour.

4. Conditions so far as they affect housing as regards water supply, closet accommodation, refuse disposal, together with measures taken during the year in these matters.—Measures have been taken to carry out general improvements in all the above matters.

IV. Unhealthy Areas.—None.

1. Action taken as regards area represented before the beginning of the year under Pi. or Pii. of H. A. 1890.—None.
2. Particulars of and action taken as regards areas represented during the year.—None.
3. Information as to complaints made during the year that areas were unhealthy and action taken.—None.

V. Bye-laws relating to houses, to houses let in lodgings, and to tents, vans, sheds, etc.—None.

1. As to working of existing bye-laws.—None.
2. As to need of new bye-laws and revision of existing bye-laws.—None.

Housing Statistics for 12 months ending December, 1919.

1. Number of dwelling-houses in respect of which complaints were made that they are unfit for human habitation.—6
 - (a) By householders.—0.
 - (b) By Parish Councils.—0.

Sec. 31 (1) of Act, 1890.
Sec. 6 (2) L. G. Act, 1894.
2. Action under Sec. 17 H. A. 1909.
 - (a) No. of houses inspected.—80.
 - (b) No. of such houses considered unfit for habitation.—6.
 - (c) No. of houses where defects were remedied without closing-order.—2.

3. Action under Sec. 28 H. A., 1919.

- (a) No. of orders for repairs issued.—12.
- (b) No. of cases in which repairs were carried out by L. A.—0.
- (c) No. voluntarily closed on notice by owner that they could not be made fit without reconstruction.—0.

4. Closing Orders.

- (a) Number of representations made to L. A. with a view to making Closing Orders.—1.
- (b) No. of Closing Orders made.—0.
- (c) No. of houses in regard to which Closing Orders were determined on the houses being made fit for human habitation.—0.

5. Demolition Orders.

- (a) No. made.—None.
- (b) No. of houses demolished in pursuance of demolition orders.—None.

6. No. of houses demolished voluntarily.—None.

7. Obstructive Buildings.—None.

- (a) Number of Representations made (Sec. 38 of H.A., 1890)—None.
- (b) No. of Buildings demolished.—None.
- (c) No. of Rrpresentations still under consideration.—None.

8. Staff engaged in Housing work with duties of each Officer:—Clerk, Architect, Surveyor, Medical Officer of Health.

Classification of Defects found on Inspection under Housing and Town Planning Act, 1909.

	REMEDIED.			
	Defects.	With Closing Order.	Without.	In hand.
1. Water supply	13	—	—	13
2. Closet accommodation		sufficient		
3. Drainage	—	—	—	—
4. Condition as to light, free circulation of air, dampness and cleanliness	40	—	—	40
5. Paving of yard and outhouses	30	—	—	30
6. Arrangement for deposit of refuse, ashés, etc.		Tip provided		
7. Existence of any room, etc.: Sub-section 7, Section 17, H. and T. P. Act, 1909	—	—	—	—
8. Any defects in other matters which may tend to render house dangerous or injurious to health	6	—	—	6
9. Overcrowding	2	—	—	2

Your have decided to build new cottages in the following:—Tarporely 4, and Rushton 2.

PREVALENCE OF AND CONTROL OVER ACUTE INFECTIOUS DISEASES.

There was one case of Scarlet Fever notified during the year. Influenza was very prevalent during the months of February and March. Tarporely schools and Cotebrook having to be closed.

There were five deaths from Influenza during the two months.

PREVALENCE OF AND CONTROL OVER TUBERCULOSIS.

No cases of pulmonary tuberculosis were notified during 1919, and one "Other forms of tuberculosis."

The Nurse visited the case when required. There is no sanatorium or hospital accommodation in your district for phthisis patients. There is a branch tuberculosis dispensary at Tarporely.

INVESTIGATION OF OTHER DISEASES.

I have no comment to make under this heading.

MEANS OF PREVENTING MORTALITY IN CHILD-BIRTH AND IN INFANCY.

There is a certified midwife in Tarporley. The Notification of Births Act, 1907, is administered by the County Council.

SANITARY ADMINISTRATION OF THE DISTRICT.

(1) Mr. Greenway, your Surveyor and Sanitary Inspector, is the only officer you have engaged in sanitary work. I have inspected with him the factories and workshops, lodging-house, many cottages, sewage disposal works, slaughter-houses, knacker's yard, etc.

(2) **Hospital Accommodation for Infectious Disease.**—Infectious diseases may be sent to Chester Isolation Hospital, Sealand, near Chester—Tarporley, Tarvin, and Malpas constituting a Joint Hospital Board. No cases were sent to hospital during 1919.

(3) I.—The following Adoptive Act has been adopted in your district:—

Infectious Diseases Prevention Act.

The Notification of Births Acts are administered by the County.

II.—The other Adoptive Acts, Byelaws, and Regulations in force in your district are:—

1. Public Health Act Amendment Act, 1890, parts 2 and 3.
2. Model Bye-laws as to New Streets, Buildings, Slaughter-houses, and Common Lodging-houses.
3. Regulations as to Dairies, Cowsheds, etc., 1902.
4. Also old Bye-laws as to Cleansing of Footways, and Removal of Refuse, and Prevention of Nuisances from snow filth, etc., and the keeping of Animals.

(4.) One sample of water was chemically analysed during 1919, and no bacteriological examination was made vide Sale of Food and Drugs Acts.

URBAN DISTRICT OF TARPORLEY.

The administration of the Factory and Workshops Act, 1901, in connection with
Factories, Workshops and Workplaces, year 1919.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections	Written Notices.	Prosecutions
Factorles (including Factory Laundries)	12	Nil	Nil
Workshops (Including Workshop Laundries)			
Workplaces (Other than outworkers' premises included in Part 3 of this Report)			
Total	12		

2.—DEFECTS FOUND.

PARTICULARS.	NUMBER OF DEFECTS.			Prosecu- tions
	Found	Remedied	Referred to H.M. Inspector	
Want of cleanliness	1	1	0	0
Sanitary accommodation :				
Insufficient	0	0	0	0
Unsuitable or defective	0	0	0	0
Total	1	1	0	0

3.—REGISTERED WORKSHOPS.

	Number.
Workshops on the Register (s. 131) at the end of the year :	
Bakehouses	6
Joiners and Wheelwrights	6
Blacksmiths and General	4
Various	15
Total number of Workshops on Register	31

TARVIN RURAL DISTRICT.

VITAL STATISTICS FOR 1919.

Area	56,874 acres
Census Population, 1911	13,187
Population estimated in 1919—	
For Birth-rate	12,757
For Death-rate	12,246
Births	225
Birth-rate	17.6
Deaths	167
Death-rate	13.6
Infant Mortality	16 under 1 year or 71.1 per 1000 births

Births.—During the fifty-two weeks of the year ending December 31st, 1919, the returns of the Registrar recorded 225 (nett) births, which is equal to a birth-rate of 17.6 per 1000 of the population. There were 16 illegitimate births.

Deaths.—The total number of deaths was 167, which is equal to a death-rate of 13.6. Six non-residents died in the district, and 15 residents died outside the district, Of the 15 residents who died outside the district, 3 died in the Asylum, 6 in the Chester Infirmary, and 2 in the Workhouse, Great Boughton. 167 is the corrected number. Sixteen of these deaths occurred in children under one year of age.

Infant Mortality.—Of the 16 deaths under one year of age mentioned above, two were under 1 week old, one between 1 and 2 weeks, three between 2 and 3 weeks, one between 3 and 4 weeks, three between 1 and 3 months, one between 3 and 6 months, one between 6 and 9 months, and two between 9 and 12 months, giving an infant mortality rate of 71.1 per 1000 births. Of the sixteen deaths two were illegitimate infants.

CAUSES OF DEATHS—CIVILIANS ONLY.

	Males.	Females.
Diphtheria and Croup	1	1
Influenza	10	11
Pulmonary Tuberculosis	3	9
Tuberculous Meningitis	—	1
Other Tuberculous Diseases	1	1
Cancer, Malignant Disease	4	10
Diarrhœa (under 2 years).....	1	—
Meningitis	2	1
Organic Heart Disease	9	6
Bronchitis	8	9
Pneumonia (all forms)	2	3
Other Respiratory Diseases	2	1
Cirrhosis of Liver	1	—
Nephritis & Bright's Disease	1	3
Congenital Debility, &c.	3	5
Violence, apart from Suicide	2	1
Suicide	1	—
Other Defined Diseases	29	23
Parturition, apart from Puerperal Fever	—	2

The amount of Poor-Law Relief for 1916 was about	£562
„ „ 1917 „	£581
„ „ 1918 „	£640
„ „ 1919 „	£1005

SANITARY CIRCUMSTANCES OF THE TARVIN
RURAL DISTRICT.

I. Water Supply.—The northern portion of the district is supplied partially by pipe supply, and partially from public and private wells. The parishes of Ashton, Mouldsworth, Kelsall, Willington, Beeston, Tilston-Fearnall, Tiverton, Saughton, and Waverton, comprising about 410 houses, are supplied by pipe; the remaining parishes, with about 1430 houses, from wells.

The southern portion of the Tarvin Rural District is supplied as to the parishes or parts of the parishes of Aldford, Buerton, Churton-by-Aldford, by the Wrexham Water Works; the remaining parishes by springs and deep and shallow wells.

Water Supplies.—The following extensions and improvements have been carried out:—

A new tube well has been made at Churton-by-Farndon.

A new well has been made at Marsh Lanes, King's Marsh.

A new well at Shochlach Hall.

New pump at Shochlach.

Four samples of water were taken and analysed chemically and none bacteriologically.

Two houses at Woodside, Ashton, are still without a proper supply, and two houses at Mouldsworth. These houses could easily be supplied from the water main, the same owner owning cottages and main.

Farndon, Burwardsley, Broxton, Tilston, Churton, and Tattenhall water supplies are in need of improvement.

The existing water supplies are fairly free from the risks of pollution, and no contamination by lead has occurred.

II. Pollution of Rivers and Streams.—In the Tarvin Rural Districts all the tributary streams of the Gowy are more or less polluted by farm sewage, which should be dealt with on the land. Public Sewage Disposal Works are likely to pollute the Dee and Aldford Brook. Private Sewage Disposal Works are likely to pollute the brook at Tattenhall, and the Dee at Farndon. Solid matters, accumulation of cinders, refuse, sludge, etc.:—The River Dee at Farndon, the brook at Tattenhall, Tilston brook. House Drainage:—The River Dee at Farndon, Tilston brook, Churton Heath, Tattenhall, Milton brook at Barrow, Clotton brook from farm and house sewage, at Clotton, Guilden Sutton, from house drainage. Manufacturing Waste or Effluents:—The Bone and Glue Works, Tattenhall Road, pollute the Gowy; the Creamery, Tattenhall; and a cheese factory at Churton Heath.

III. Drainage, Sewerage, and Sewage Disposal.—New works of sewerage have been carried out in your district during 1919, at Aldersey Hall new drainage throughout, also at Marsh Home Farm and Cottages, Farndon, Tattenhall, and Churton are still without a proper system of sewerage; the two new works at Churton are being dealt with and are still before you for consideration. The sewage

is disposed of in most cases into the nearest water-course in a crude state. In some cases it is filtered before entering the stream; in other cases it is deposited on the land. There have been three complaints during 1919 as to the disposal of sewage, at Churton, Shochlach, and Tattenhall. No alterations or extensions have taken place in disposal works during 1919, except the above.

Aldford village is the only part of the district with a proper system of sewers.

IV. Scavenging.—House to house scavenging is not carried out by your Authority. House refuse such as ashes is carted away by farmers for repairing their gateways, and the scavenging of closets is done by the occupier, the contents being used or buried in the gardens. The roads are regularly swept clean, especially the main roads through the villages, these being chiefly made of tar mac.

Approximately there are about

1560 Midden Privies

1200 Dry Ashpits

1000 Pail Closets (emptied weekly)

No record of Dustbins

780 Cesspools

There are too many midden privies in your district. These are being condemned, and the pail closet system introduced whenever opportunity offers, but there is a difficulty in obtaining pails.

V. Sanitary Inspections of the Tarvin Rural District during 1918.—There are two inspectors for your district. Mr. Dean, of Clotton, near Tarporley, takes the northern district, and Mr. Boden, of Saughton Lane, takes the southern. They have made numerous inspections from time to time alone and with the Medical Officer of Health.

A tabulated statement showing particulars of these inspections is appended.

TARVIN RURAL DISTRICT.

Tabular Statement of Mr. DEAN, Inspector of Nuisances Tarvin Northern Division,
for the Year ended December 31st, 1919.

A		Number	B		Result of Service of Notices. C			
Number and Nature of Inspections made.			Number of Notices served.		Notices complied with	Remain- ing in hand.	Prosecutions.	
			Statutory	Informal			Instituted	Pending
1.	Dwelling Houses (general inspections)	...	160	1	25	25	1	1
2.	Cellar Dwellings	...	...			
3.	Back-to-Back Houses	...	...			
4.	Tents, Vans, Sheds, &c.	...	...			
5.	Courts, Yards, Passages	...	...			
6.	Privy-Middens, Earth or Pail Closets	...	200		17	17		
7.	Cesspools	...	35		3	3		
8.	House Drainage	...	120		5	5		
9.	Ditches, Watercourses, &c.	...	32		6	6		
10.	Offensive Accumulations	...	60		1	1		
11.	The Keeping of Animals (P.H.A., 1875, S. 91 (3))	...	...			
12.	Offensive Trades	...	...			
13.	(a) Slaughterhouses (Public)	...	...			
	(b) Other Places where Food is produced or sold (Private)	...	24					
14.	Piggeries	...	230					
15.	(a) Dairies	...	150					
	(b) Cowsheds	...	150					
	(c) Milkshops	...	...			
16.	(a) Factories	...	25					
	(b) Workshops	...	72					
	(c) Workplaces	...	...			
	(d) Outworkers' Premises	...	...			
17.	Bakehouses (Overground)	...	40					
	" (Underground)	...	...			
18.	Common Lodging Houses	...	...			
19.	Houses let in Lodgings	...	...			
20.	Smoke Observations	...	...			
21.	Canal Boats	...	...			
22.	Infectious Disease Inquiries and Revisits	...	...			
23.	Miscellaneous	...	42					

**Tabular Statement of Mr. BODEN, Inspector of Nuisances Tarvin Southern Division,
for the Year ended December 31st, 1919.**

A		Number	B		Result of Service of Notices. C		
Number and Nature of Inspections made.			Number of Notices served.		Notices complied with	Remain- ing in hand.	Prosecutions.
			Statutory	Informal		Instituted	Pending
1.	Dwelling Houses (general inspections)	250					
2.	Cellar Dwellings	...					
3.	Back-to-Back Houses	...					
4.	Tents, Vans, Sheds, &c.	...					
5.	Courts, Yards, Passages	...					
6.	Privy-Middens, Earth or Pail Closets	...					
7.	Cesspools	...			20		
8.	House Drainage	...			30		
9.	Ditches, Watercourses, &c.	...			6		
10.	Offensive Accumulations	...			12		
11.	The Keeping of Animals (P.H.A., 1875, S. 91 (3))	...			9		
12.	Offensive Trades	...			10		
13.	(a) Slaughterhouses (Public)	...					
	(b) " " (Private)	...					
	(c) Other Places where Food is produced or sold	...					
14.	Piggeries	20	2		2		
15.	(a) Dairies	50	3		3		
	(b) Cowsheds	100	6		5	1	
	(c) Milkshops	...					
16.	(a) Factories	...	100	2	2		
	(b) Workshops	...					
	(c) Workplaces	...	10	1	1		
	(d) Outworkers' Premises	...	26	6	6		
17.	Bakehouses (Overground)	4					
	" " (Underground)	...					
18.	Common Lodging Houses	...	30	10	9	1	
19.	Houses let in Lodgings	...					
20.	Smoke Observations	...					
21.	Canal Boats	...					
22.	Infectious Disease Inquiries and Revisits—3 visits each	...					
23.	Miscellaneous...	...					

Neither of the following Adoptive Acts have been adopted in your district this last year.

1.—Infectious Diseases Prevention Act.

2.—Public Health Amendment Act, 1907.

VI. Premises and Occupations which can be controlled by Bye-Laws or Regulations.—There are no other Adoptive Acts, Bye-Laws, and Regulations in force in your district.

No action has been needed in regard to houses let in lodgings, offensive trades, etc., nor in respect of underground sleeping rooms (Housing and Town Planning Act, 1909, Section 17 (7), as there are none in your district.

VII. Schools.—I have nothing to add to my remarks under Schools. (See earlier on in this Report.)

FOOD.

(a) **Milk Supply.**—The number of registered premises at the close of 1919 was 73; these were regularly inspected (about 250 inspections). Only informal notices were served for non-compliance with the regulations, and no legal actions were necessary. 1

The milk produced within the district is wholesome.

The cowsheds are all fairly clean and well kept, but most of them are short of ventilation and have inside gulleys. There are very few shippens with the 600 cubic feet of air space per cow as suggested by the Board of Agriculture and Fisheries.

Most dairymen turn their cows out some part of the day in winter, and keep them out night and day in the summer.

Milk and Cream Regulations, 1912.—I have no information to give regarding the administration of these Regulations.

(b) **Other Food Inspection.**—Food inspection is systematically carried out in your district. There are no public slaughter-houses. There are 11 private slaughter-houses and these have been inspected 44 times during the year 1919. Two informal notices were served and both complied with. There is a systematic inspection of the 22 bakehouses and

confectioners, and premises where sausages and meat pies are made; these were all found satisfactory, and no diseased meat has been offered or exposed for sale.

(c) **Sale of Food and Drugs Acts.**—Particulars of samples submitted to the Public Analyst from the Tarvin Rural District during the year ending 31st December, 1919, will be found earlier in this Report.

PREVALENCE OF AND CONTROL OVER ACUTE INFECTIOUS DISEASES.

Infectious Diseases Notification Act.—There were 128 cases of infectious disease notified during the year 1919, viz.:—

Measles and German Measles	9
Diphtheria (including Membranous Croup)	16
Scarlet Fever	3
Pulmonary Tuberculosis	8
Other forms of Tuberculosis	1
Enteric	1
Erysipelas	1
Pneumonia	3

There were three deaths from measles, four deaths from phthisis, and two from "other tuberculous diseases." Of the six deaths from tuberculous diseases, four had not been previously notified.

The Diphtheria cases occurred in January, February and April.

Three cases of Diphtheria and one of Scarlet Fever were removed to Hospital.

For school closure, vide "Schools" and for Influenza see earlier in this Report.

PREVALENCE OF AND CONTROL OVER TUBERCULOSIS.

There were eight cases of pulmonary tuberculosis notified during 1919, and one "other tuberculous." There were sanitary inspections of patients' houses, and disinfections done.

Printed forms, fumigating material, disinfectants, and sputum flasks, are issued in your district, as well as the districts of Tarporley, Chester Rural District, and Malpas Rural District, to all consumptive patients notified, advising them how to live hygienically and prevent further infection in others.

There is no sanatorium or hospital accommodation in your district for phthisis patients.

SANITARY ADMINISTRATION OF THE DISTRICT.

1.—**Staff.**—You have two Sanitary Inspectors for the district. Mr. Dean, of Clotton, takes the northern division, and Mr. Boden, of Saighton, the southern division. Each of them combine the duties of Suveyor with their sanitary work. In my opinion it is advisable to separate the two duties, as it is impossible for a Sanitary Inspector to devote a fair share of his time over Sanitary work when the Steam Roller is in his district.

2.—**Hospital Accommodation for Infectious Disease.**—The Fever Hospital at Sealand, Chester, Tarvin constituting one of the Conjoint Hospital Board. Ten cases in all were sent to the Fever Hospital during 1919, seven of these being scarlet fever and three diphtheria.

3.—Neither of the following Adoptive Acts have been adopted in your district during this last year:—

1.—Infectious Diseases Prevention Act.

2.—Public Health Amendment Act, 1907.
nor are there any Adoptive Acts, Byelaws, and Regulations in force in your district.

The amount of Out-Relief paid in 1919 was £1,005.

FACTORY AND WORKSHOPS ACT, 1901.

	Inspec- tions.	Notices.	Prosecu- tions,
Factories	35	1	0
Workshops	98	6	0
Workplaces	4	0	0

Workshops on Register at end of year.

Bakehouses	22
Rubber Works	1
Bone and Glue	1
Corn Mills	8
Boot and Shoe Makers	9
Milliners	3
Cabinet Maker	1
Creamery	1
Blacksmiths	15
Joiners and Wheelwrights	14
Cycle Repairers	1
Saddlers	2

HOUSING—North Division.

II. General housing conditions in the District.

1. No. of houses.

No. for working classes, 2206 whole district.
1239 (North).

New houses in course of erection 1919.—Nil.

2. Population 13,643. Anticipated changes.—None.

3. (a) Extent of shortage—35 whole district.

(b) Measures taken or contemplated to meet shortage.—To build 35.

II. Overcrowding.

1. Extent.—This is found more or less all through the district.

2. Causes.—(1) Owing to young people getting married during the war. (2) House Accommodation too small for large families.

3. Measure taken or contemplated to deal with overcrowding.—To build 35.

4. Principal cases of above dealt with and action taken.—No action has been taken owing to shortage of cottages.

III. Fitness of houses.

1. (a) General Standard of housing in district.—
Fair.

- (b) General character of defects found in unfit houses.—Bad drainage, insufficient light and ventilation.

See table.

2. Action taken as to unfit houses under 2/P.H.A., b/H.T.A.P.—Closing Order served but no further action taken.
3. Difficulties in remedying unfitness, special measures taken and any suggestions.—Unable to get tenants out owing to shortage of houses and shortage of labour.
4. Conditions so far as they affect housing as regards water supply, closet accommodation, refuse disposal, together with measures taken during the year in these matters.—No steps have been taken to improve water supplies; closet accommodation to some extent being improved—in most cases refuse is dealt with on gardens connected with houses. Nothing of importance has been taken in hand during the year.

IV. Unhealthy Areas.

1. Action taken as regards area represented before the beginning of the year under Pi. or Pii. of H. A. 1890.
2. Particulars of and action taken as regards areas represented during the year.
3. Information as to complaints made during the year that areas were unhealthy and action taken.

There are no unhealthy areas in the district.

V. Bye-laws relating to houses, to houses let in lodgings, and to tents, vans, sheds, etc.

1. As to working of existing bye-laws.

As to need of new bye-laws and revision of existing bye-laws.

No bye-laws have been adopted.

Housing Statistics for 12 months ending December, 1919.

1. No. of dwelling-houses in respect of which complaints were made that they are unfit for human habitation.—One.

(a) By householders.—None.

(b) By Parish Councils.—None.

Sec. 31 (1) of Act, 1890.

Sec. 6 (2), L. G. Act, 1894.

2. Action under Sec. 17 H. A. 1909.

(a) No. of houses inspected.—62.

(b) No. of such houses considered unfit for habitation.—2.

(c) No. of houses where defects were remedied without closing order.—12.

3. Action under Sec. 28 H. A. 1919.

(a) No. of orders for repairs issued.—20.

(b) No. of cases in which repairs were carried out by Local Authority.—None.

(c) No. voluntarily closed on notice by owner that they could not be made fit without re-construction.—None.

4. Closing Orders.

(a) No. of representations made to Local Authority with a view to making Closing Orders.—Two.

(b) No. of Closing Orders made.—One.

(c) No. of houses in regard to which Closing Orders were determined on the houses being made fit for human habitation.—None.

5. Demolition Orders.

(a) No. made.—None.

(b) No. of houses demolished in pursuance of demolition orders.—One house at Hollowmoor Heath, Barrow, demolished by Fire; two cottages at Clotton converted into one.

6. No. of houses demolished voluntarily.—None.

7. Obstructive Buildings.—Nil.

(a) No. of representations made, Sec. 38 of H. A., 1890.—Nil.

(b) No. of buildings demolished.—Nil.

(c) No. of Representations still under consideration.—Nil.

8. Staff engaged in Housing work with duties of each Officer.—Architect, Clerk, Medical Officer of Health, Inspector (part time).

Classification of Defects found on Inspection under Housing and Town Planning Act, 1909.

	Defects.	REMEDIED.			In hand.
		With Closing Order.	Without		
1. Water supply	2	0	0		2
2. Closet accommodation	6	0	6		0
3. Drainage	6	0	6		0
4. Condition as to light, free circulation of air, dampness, and cleanliness	0	0	0		0
5. Paving of yard and outhouses	0	0	0		0
6. Arrangement for deposit of refuse, ashes, etc.	0	0	0		0
7. Existence of any room, etc.: Sub-section 7 of Section 17, H. and T. P. Act, 1909	0	0	0		0
8. Any defects in other matters which may tend to render house dangerous or injurious to health	0	0	0		0
9. Overcrowding	3	0	3		0

HOUSING—South Division.**I. General housing conditions in the District.**

1. No. of houses, Southern division—1240, including 5 new.

No. for working classes 2206 (whole division. 962 Southern Division.

New houses or in course of erection 1919.—5.

2. Population 13,643. Anticipated changes.—None.
3. (a) Extent of shortage.—35 whole district.
(b) Measures taken or contemplated to meet shortage.—To build 35.

II. Overcrowding.

1. Extent.—Two cases under notice.
2. Causes.—Large families: Sons returning from War, etc.
3. Measures taken or contemplated to deal with overcrowding.—Owners communicated with, and the addition of 35 new houses.
4. Principal cases of above dealt with and action taken.—Sec. 11, 3.

III. Fitness of Houses.

1. (a) General standard of housing in District.—Very fair.
(b) General character of defects found in unfit houses.—See tables at end of Housing Report.
2. Action taken as to unfit houses under a/P.H.A.. b/H.T.P.A.—Nil.
3. Difficulties in remedying unfitness, special measures taken and any suggestions.—Chiefly shortage of labour.
4. Conditions so far as they affect housing as regards water supply, closet accommodation, refuse disposal, together with measures taken during the year in these matters.—Not good in places.

IV. Unhealthy Areas.

1. Action taken as regards area represented before the beginning of the year under Pi. or Pii. of H. A., 1890.—None.

2. Particulars of and action taken as regards areas represented during the year.—None.
3. Information as to complaints made during the year that areas were unhealthy and action taken.—None.

V. Bye-laws relating to houses, to houses let in lodgings, and to tents, vans, sheds, etc.

1. As to working of existing bye-laws.
2. As to need of new bye-laws and revision of existing bye-laws.

No bye-laws have been adopted.

Housing Statistics for 12 months ending December, 1919.

1. No. of dwelling-houses in respect of which complaints were made that they are unfit for human habitation.

(a) By householders.—Several chiefly for dampness

(b) By Parish Councils.—None.

Sec. 31 (1) of Act, 1890.

Sec. 6 (2) L. G. Act, 1894.

2. Action under Sec. 17, H. A., 1909.

(a) No. of houses inspected.—42.

(b) No. of such houses considered unfit for habitation.—None.

(c) No. of houses where defects were remedied without Closing Order.—19.

3. Action under Sec. 28 H. A. 1919.

(a) No. of orders for repairs issued.—None.

(b) No. of cases in which repairs were carried out by Local Authority.—None.

(c) No. voluntarily closed on notice by owner that they could not be made fit without reconstruction.—None.

4. Closing Orders.

(a) No. of representations made to L. A. with a view to making Closing Orders.—None.

(b) No. of Closing Orders made.—None.

(c) No. of houses in regard to which Closing Orders were determined on the houses being made fit for human habitation.—None.

5. Demolition Orders.

(a) No. made.—None.

(b) No. of houses demolished in pursuance of demolition orders.—None.

6. No. of houses demolished voluntarily.—None.

7. Obstructive Buildings.

(a) No. of Representations made (Sec. 38 of H. A. 1890).—None.

(b) No. of Buildings demolished.—None.

(c) No. of Representations still under consideration.—None.

8. Staff engaged in Housing work with duties of each Officer.—Architect, Clerk, Medical Officer of Health, Inspector (part time).

Classification of Defects found on Inspection under Housing and Town Planning Act, 1909.

	Defects.	REMEDIED.		
		With Closing Order.	Without	In hand
1. Water supply	19	0	5	14
2. Closet accommodation.....	6	0	0	6
3. Drainage	31	0	5	26
4. Condition as to light, free circulation of air, dampness, and cleanliness	41	0	3	38
5. Paving of yard and outhouses ...	12	0	3	9
6. Arrangement for deposit of refuse, ashes, etc.	10	0	3	7
7. Existence of any room, etc.: Sub-section 7 of Section 17, H. and T. P. Act, 1909	0	0	0	0
8. Any defects in other matters which may tend to render house dangerous or injurious to health	0	0	0	0
9. Overcrowding	2	0	0	2

You have decided to build new houses in your district as detailed below:—

Barton	4
Tattenhall	7
Clutton	4
Tiverton	4
Clotton	8
Hockenhull	8

also at Newton, Caldicott, Coddington, Golborn David, Huntingdon. The numbers to be decided upon later.

MALPAS RURAL DISTRICT.

VITAL STATISTICS FOR 1919.

Area	21,408 acres
Census Population, 1911	4,643
Population estimated in 1919	
For Birth-rate	4,473
For Death-rate	4,294
Births	79
Birth-rate	17.6
Deaths	61
Death-rate	14.2
Infant Mortality	11 under 1 year or 139.2 per 1000 births

Births.—During the fifty-two weeks of the year ending December 31st, 1919, the returns of the Registrars recorded 79 births (corrected), which is equal to a birth-rate of 14.2 per 1000 of the population. The rate is very much higher than last year. There were four illegitimate births.

Deaths.—The total number of deaths was 61 (corrected), which is equal to a death-rate of 14.2. Nine residents died out of the district. Eleven of the total deaths occurred in children under one year of age. The number of deaths from Influenza was three.

Infant Mortality.—Of the eleven deaths under one year of age mentioned above, five were under one week old, three between one and three months, and three between three and twelve months. Infant mortality rate 139.2 per 1000 births.

CAUSES OF DEATHS—CIVILIANS ONLY.

	Males.	Females.
Influenza	—	3
Pulmonary Tuberculosis	—	2
Other Tuberculous Diseases	1	—
Cancer, malignant disease	4	3
Organic Heart Disease	8	4
Bronchitis	—	2
Pneumonia (all forms)	5	3

	Males.	Females.
Other Respiratory Diseases	1	—
Rheumatic Fever	—	1
Congenital Debility, &c.	4	3
Violence, apart from Suicide	2	1
Other defined diseases	8	4
Suicide	—	1
Causes ill-defined	—	1

SANITARY CIRCUMSTANCES OF THE MALPAS RURAL DISTRICT.

I. Water Supply.—Malpas Rural District is supplied largely from the Liverpool Corporation main. The main runs through the town of Malpas which it supplies, also the parish of Bickley, a farm and two cottages at Oldcastle, and part of Norbury. Other parishes are supplied from public and private wells. The supply is constant, and there are no complaints as to action on lead. There is a sufficient supply except in dry weather, and the wells are fairly free from the risks of pollution. Three samples of water were chemically analysed during the year.

No extensions have been carried out.

II. Pollution of Rivers and Streams.—In the Malpas Rural District there seems to be little pollution of the streams except from house and farm drainage. The farm drainage and sewage is nearly all dealt with on the land. No manufacturing waste or effluents cause pollution.

III. Drainage, Sewerage, and Sewage Disposal.—New works of sewerage have been carried out at Whitchurch Road. Last year a new settling tank was made, and the filter beds renewed; and better distributing arrangements made this year. The sewage for Malpas Town is disposed of by bacteriological treatment. There are three outfalls, one at Wells Lane, one at Whitchurch Road, and one at Wrexham Road, each consisting of a sedimentation tank which empties on to three lots of filter beds, arranged in two tiers.

None of the district, except Malpas Town, has any system of sewers. In the small villages most of the houses have separate cesspools. Isolated cottages run their sewage

into cesspools or into the nearest water-course. Most of the farms deposit their sewage on to the land. A farm at Chorlton has a Dibdin's slate bed installed for the treatment of its sewage.

IV. Closet Accommodation.—This is, on the whole, satisfactory. There are about 150 w.c.'s in Malpas. Pail closets are being introduced in different parts of the district when alterations are done.

V. Scavenging.—Scavenging is not carried out by your Authority. Most of the houses in the district have ashpit-privies or midden-privies. These are emptied when required on to the land, each householder being responsible for the disposal of his own refuse.

The approximate number of

(a) Midden-privies	128
(b) Dry Ashpits	40
(c) Pail Closets	217
(d) Dustbins	6
(e) Cesspools	570

The present system seems fairly adequate, but improvements are needed and midden-privies ought to be abolished—pail closets and covered dust-bins or ash-bins substituted.

VI. Sanitary Inspection of the District.—The following is a classified statement of the number of premises visited, the defects or nuisances discovered, and the action and result of action taken in regard to these:—

**Tabular Statement of Mr. CLAYTON, Inspector of Nuisances,
for the Year ended December 31st, 1919.**

A		Number	B		Result of Service of Notices. C		
			Number of Notices served.		Notices complied with	Remain- ing in hand.	Prosecutions.
			Statutory	Informal			Instituted Pending
1.	Dwelling Houses (general inspections) ...	19		15	9	6	
2.	Cellar Dwellings ...	...	...	...	...	...	...
3.	Rack-to-Back Houses ...	...	...	...	...	...	...
4.	Tents, Vans, Sheds, &c. ...	...	...	...	...	...	...
5.	Courts, Yards, Passages ...	...	...	...	...	...	...
6.	Privy-Middens, Earth or Pail Closets ...	20	...	15	12	3	...
7.	Cesspools ...	3	...	3	3	...	...
8.	House Drainage ...	15	...	15	10	5	...
9.	Ditches, Watercourses &c. ...	2	...	2	2	...	...
10.	Offensive Accumulations ...	3	...	3	3	...	...
11.	The Keeping of Animals (P.H.A., 1875, S. 91 (3)) ...	2	...	2	2	...	...
12.	Offensive Trades ...	12	...	3	3	...	...
13.	(a) Slaughteries (Public) ...	36	...	6	6	...	...
	(b) Other Places where Food is produced or sold (Private) ...	...	...	...	...	...	...
14.	Piggeries ...	...	...	...	...	...	...
15.	(a) Dairies ...	...	...	...	...	...	...
	(b) Cowsheds ...	70	...	50	50	...	...
	(c) Milkshops ...	...	...	...	...	...	...
16.	(a) Factories ...	36	...	4	4	...	...
	(b) Workshops ...	...	...	...	...	...	...
	(c) Workplaces ...	...	...	...	...	...	...
	(d) Outworkers' Premises ...	...	...	...	...	...	...
17.	Bakehouses (Overground) ...	40	...	...	3	2	...
	" (Underground) ...	...	...	...	...	...	...
18.	Common Lodging Houses ...	...	...	...	...	...	...
19.	Houses let in Lodgings ...	...	...	...	...	...	...
20.	Smoke Observations ...	21	...	4	4	...	...
21.	Canal Boats ...	50	...	...	...	...	...
22.	Infectious Disease Inquiries and Revisits ...	10	...	8	8	...	...
23.	Miscellaneous ...	...	...	...	...	...	...

VII. Premises and Occupations which can be Controlled by Byelaws or Regulations.—No action has been taken or needed in regard to houses let in lodgings, offensive trades, nor in respect of underground sleeping rooms (Housing and Town Planning, etc., Act, 1909, Section 17 (7), as there are none in your district.

VIII. Schools.—I have nothing to add to what is said under the schools conjointly.

FOOD.

(a) **Milk Supply.**—In your district the number of registered premises at the close of 1919 was 90. These have been regularly inspected. There were 50 notices served for non-compliance with regulations, but no legal actions were taken for non-compliance. The milk produced within the district is wholesome. No action had to be taken as to Tuberculosis.

Milk and Cream Regulations, 1912.—There has been nothing to report under this heading.

(b) **Food Inspection.**—Food inspection is systematically carried out in your district. There are no public slaughter-houses. There are six private slaughter-houses which were inspected thirty-six times during the year. Systematic inspections of the nine bakehouses were also made during the year. The conditions found at these inspections were satisfactory.

(c) **Sale of Food and Drugs Acts.**—For the particulars of samples submitted to the Public Analyst from the Malpas Rural District during the year ending 31st December, 1919, see earlier in this Report.

PREVALENCE OF AND CONTROL OVER ACUTE INFECTIOUS DISEASES.

Infectious Diseases Notification Act.—There were 19 cases of infectious diseases notified during the year 1919.

Diphtheria	1
Pneumonia	1
Pulmonary Tuberculosis	4
Other forms of Tuberculosis	1
Measles	13

The case of Diphtheria was removed to the Chester Isolation Hospital at Sealand (Malpas constituting one of the Conjoint Hospital Board with Tarporley and Tarvin).

Influenza was very prevalent in February and March; Malpes, Edge Green and Tushingham Schools were closed, and Marbury for Chicken-pox in October.

PREVALENCE OF AND CONTROL OVER TUBERCULOSIS.

There were four cases of pulmonary tuberculosis notified during 1919, and one of "Other tuberculosis."

What has been said under the Conjoint Report applies to your district.

There is no sanatorium or hospital accommodation for phthisis patients in your district, and under the County Scheme for Dispensary Treatment, Malpas patients can go to the Dispensary at Tarporley or Chester.

INVESTIGATION OF OTHER DISEASES.

I have no comment to make on any influences threatening the health of the district adversely, except Influenza. See earlier in this Report.

SANITARY ADMINISTRATION OF THE DISTRICT.

1.—Your sanitary inspector, Mr. Clayton, of Brownlow Street, Whitchurch, is your only officer, beside myself, engaged in sanitary work. He has from time to time made numerous inspections alone and with me throughout the district.

2.—**Hospital Accommodation for Infectious Diseases other than Smallpox.**—The Isolation Hospital, Sealand, Chester. For smallpox, arrangements are made with Whitchurch Smallpox Hospital.

The Conjoint Hospital Board for infectious disease consists of Tarporley, Tarvin, and Malpas districts.

3.—**Administration of Local Acts, etc.**—None of the following Adoptive Acts are in force in your district:—

1.—Infectious Diseases Prevention Act.

2.—Public Health Amendment Act, 1907.

No other Adoptive Acts, Byelaws, and Regulations have been adopted in 1919.

There were three samples of water chemically analysed during 1919, none bacteriologically.

The amount of Poor-Law Relief for 1919 was £222 6s. 6d.

FACTORY AND WORKSHOPS ACT, 1901.

	Inspections.	Notices.	Prosecutions.
Factories			
Workshops (including Bakehouses)	76	9	0
Workplaces			

Workshops on Register at end of year 1919.

Bakehouses	9
Blacksmiths	9
Wheelwrights	3
Tailors	3
Dressmakers	2
Saddlers	2
Shoemakers	5

HOUSING.

I. General housing conditions in the District.

1. No. of houses.

No. for working classes 875.

New houses or in course of erection 1919.—None.

2. Population 4763. Anticipated changes.—None.

3. (a) Extent of shortage or excess.—Twenty or more short.

(b) Measures taken or contemplated to meet shortage.—Council are building cottages in near future.

II. Overcrowding.

1. Extent.—Slight.
2. Causes.—Result of no building during the War.
3. Measures taken or contemplated to deal with overcrowding.—Council have a building scheme in contemplation.
4. Principal cases of above dealt with and action taken.—None.

III. Fitness of houses.

1. (a) General standard of housing in District.—Fair.
 (b) General character of defects found in unfit houses.—General: Roofs leaky, drains bad. See table below.
2. Action taken as to unfit houses under a P.H.A. b/H.T.P.A.—Owners written to.
3. Difficulties in remedying unfitness, special measures taken and any suggestions.—Considerable difficulty owing to shortness of labour and high price of building work.
4. Conditions so far as they affect housing as regards water supply, closet accommodation, refuse disposal, together with measures taken during the year in these matters.—Fair: ordinary defects can usually be overcome by representations being made to owners.

IV. Unhealthy Areas.

1. Action taken as regards area represented before the beginning of the year under Pi. or Pii. of H. A. 1890.—None.
2. Particulars of and action taken as regards areas represented during the year.—None.
3. Information as to complaints made during the year that areas were unhealthy and action taken.

V. Bye-laws relating to houses, to houses let in Lodgings, and to tents, vans, sheds, etc.

1. As to working of existing bye-laws.—None.
2. As to need of new bye-laws and revision of existing bye-laws.

Housing Statistics for 12 months ending December, 1919.

1. No. of dwelling-houses in respect of which complaints were made that they are unfit for human habitation.
 - (a) By householders.—Nil.
 - (b) By Parish Councils.—Nil.

Sec. 31 (1) of Act, 1890.
Sec. 6 (2) L. G. Act, 1894.
2. Action under Sec. 17 H. A. 1909.
 - (a) No. of houses inspected.—19.
 - (b) No. of such houses considered unfit for habitation.—Nil.
 - (c) No. of houses where defects were remedied without Closing Order.—9.
3. Action under Sec. 28 H. A. 1919.
 - (a) No. of orders for repairs issued.—15.
 - (b) No. of cases in which repairs were carried out by Local Authority.—Nil.
 - (c) No. voluntarily closed on notice by owner that they could not be made fit without reconstruction.—Nil.
4. Closing Orders.
 - (a) No. of representations made to L. A. with a view to making Closing Orders.—Nil.
 - (b) No. of Closing Orders made.—Nil.
 - (c) No. of houses in regard to which Closing Orders were determined on the houses being made fit for human habitation.—Nil.
5. Demolition Orders.
 - (a) No. made.—Nil.
 - (b) No. of houses demolished in pursuance of demolition orders.—Nil.

6. No. of houses demolished voluntarily.—Nil.

7. Obstructive Buildings.

(a) No. of Representations made (Sec. 38 of H. A. 1890.—Nil.

(b) No. of Buildings demolished.—Nil.

(c) No. of Representations still under consideration.—Nil.

8. Staff engaged in Housing work with duties of each Officer:—One part time Inspector.

Classification of Defects found on Inspection under Housing and Town Planning Act, 1909.

	Defects.	REMEDIED.		
		With Closing Order.	Without	In hand
1. Water supply	2	0	2	0
2. Closet accommodation	3	0	1	2
3. Drainage	7	0	6	1
4. Condition as to light, free circulation of air, dampness and cleanliness	6	0	5	1
5. Paving of yard and outhouses ...	1	0	0	1
6. Arrangement for deposit of refuse, ashes, etc.	1	0	0	1
7. Existence of any room etc.: Sub-section 7 of Section 17 H. and T. P. Act, 1909	0	0	0	0
8. Any defects in other matters which may tend to render house dangerous or injurious to health	0	0	0	0
9. Overcrowding	0	0	0	0
10. Roof bad	3	0	3	0

You have decided to build houses in the following Parishes:—Edge, Hampton, Larkton, Macefen, Malpas, Norbury, Tushingham.